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### **(57) Abstract**

**Technical problem** Provide the merchandise management system which can, easily and certain moreover, manage the goods in a store or a warehouse in real time.

**Means for Solution** Goods kept or displayed in two or more divisions, and a RFID tag with which these goods are equipped and which has an identification code peculiar to goods, A read unit which consists of a registration machine which writes an identification code in this RFID tag, an antenna which receives a signal of this RFID tag, and a reader which reads a signal to an identification code received with this antenna, Consist of an information control means to which an identification code read with a reader is transmitted, and this information control means, A storage parts store which memorizes an identification code which merchandise information, such as a kind and a price, was memorized beforehand, and was transmitted from a reader, It has CPU which combines an identification code and merchandise information which were memorized by this storage parts store, and is displayed on an indicator, and a read unit is installed for every division, and an individual address is attached for every division.

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### **Claim(s)**

**Claim 1** Consist of an information control means characterized by comprising the following to which a read unit and an identification code read with said reader are transmitted, and this information control means, A storage parts store which memorizes an identification code which merchandise information, such as a kind and a price, was memorized beforehand, and was transmitted from said reader, A merchandise management system characterized by having CPU which combines an identification code and merchandise information which were memorized by this storage parts store, and is displayed on an indicator, and installing said read unit for every division, and coming to give an individual address for every division.

Goods kept or displayed in two or more divisions.

A RFID tag with which these goods are equipped and which has an identification code peculiar to these goods.

A registration machine which writes said identification code in this RFID tag.

A reader which reads an identification code in a signal which was connected with an antenna which receives a signal of this RFID tag, and this antenna, and was received with an antenna.

**Claim 2**The merchandise management system according to claim 1, wherein said two or more divisions are the shelves for commodity exhibitions.

**Claim 3**The merchandise management system according to claim 1 or 2 characterized by keeping said goods in a warehouse for ON shipment, and coming to allocate said read unit in an entrance of this warehouse.

**Claim 4**The merchandise management system according to any one of claims 1 to 3 characterized by a storage parts store of said information control means coming to memorize personal information, such as a worker's name, beforehand while a worker treating said goods is equipped with a RFID tag which has an identification code peculiar to each worker.

**Claim 5**The merchandise management system according to any one of claims 1 to 4, wherein said goods are poison poisonous on a human body.

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## **Detailed Description of the Invention**

### **0001**

**Field of the Invention**This invention relates to a merchandise management system, and the purpose is to provide the merchandise management system which can, easily and certain moreover, manage the goods in a store or a warehouse in real time. Radio used in a data carrier system (mobile identification unit) in this specification with a RFID tag FURIKYU Enshi The thing of an identification (Radio Frequency Identification) tag is said.

### **0002**

**Description of the Prior Art**Conventionally, although management of goods was performed by taking an inventory at the time of the end of the month or settlement of accounts, and carrying out a check with the actual thing and a check, there were many mistakes to count and neither a mistake nor goods knowledge be, and, comparatively accompanied by serious time and effort, exact management was not able to be performed. So, these days, the method of carrying out computer management of the information on goods is widely adopted by equipping with the bar code which gave the individual identification number to each goods, and reading this bar code.

### **0003**

**Problem(s) to be Solved by the Invention**However, since it was necessary to discover and read the position equipped with the bar code, when reading took time and effort and the pars basilaris ossis occipitalis of heavy goods was especially equipped with the bar code, it was serious in the merchandise management which uses the bar code currently performed conventionally. This invention is made in order to solve such a technical problem, and it does not require time and effort for reading of merchandise information, and it is going to provide the merchandise management system which can perform easy, exact, and timely merchandise management.

### **0004**

**Means for Solving the Problem**Goods in which an invention concerning claim 1 was kept or displayed in two or more divisions, A RFID tag with which these goods are equipped and which has an identification code peculiar to these goods, A read

unit which consists of a reader which reads a signal which was connected with a registration machine which writes said identification code in this RFID tag, an antenna which receives a signal of this RFID tag, and this antenna, and was received with an antenna, Consist of an information control means to which an identification code read with said reader is transmitted, and this information control means, A storage parts store which memorizes an identification code which merchandise information, such as a kind and a price, was memorized beforehand, and was transmitted from said reader, It has CPU which combines an identification code and merchandise information which were memorized by this storage parts store, and is displayed on an indicator, and said read unit is installed for every division, and it is related with a merchandise management system characterized by coming to give an individual address for every division. An invention concerning claim 2 relates to the merchandise management system according to claim 1, wherein said two or more divisions are the shelves for commodity exhibitions. Said goods are kept in a warehouse for ON shipment, and an invention concerning claim 3 relates to the merchandise management system according to claim 1 or 2 characterized by coming to allocate said read unit in an entrance of this warehouse. While a worker treating said goods is equipped with a RFID tag which has an identification code peculiar to each worker, an invention concerning claim 4, It is related with the merchandise management system according to any one of claims 1 to 3, wherein a storage parts store of said information control means comes to memorize personal information, such as a worker's name, beforehand. An invention concerning claim 5 relates to the merchandise management system according to any one of claims 1 to 4, wherein said goods are poison poisonous on a human body.

#### **0005**

**Embodiment of the Invention** Hereafter, the suitable embodiment of the merchandise management system concerning this invention is described, referring to drawings. Drawing 1 is a figure showing the basic constitution of the merchandise management system concerning this invention. The merchandise management system of this invention comprises:

Goods (1) kept or displayed in two or more divisions.

The RFID tag (2) with which these goods are equipped and which has an identification code peculiar to goods.

The registration machine (3) which writes said identification code in this RFID tag.

The information control means (5) connected with the read unit (4) which receives and reads the signal from this RFID tag, and this read unit so that transmission and reception were possible.

**0006** It is articles by which a commercial transaction is carried out, such as electric appliances, stationery, accessories, foodstuffs, and car accessories, and the kind in particular is not limited, but the goods (1) in this invention divide these products (1) for every kind of goods, and are kept in the warehouse for ON shipment, or are displayed at a store for sale.

**0007** As a RFID tag (2), the publicly known RFID tag in which it comes to store an internal antenna and an IC chip in a case is used. The shape in particular of the

RFID tag (2) used is not limited, but it should just use a thing suitable for equipping goods from the thing of various shape, such as a disk type, a card shape, and cylindrical, choosing it suitably. The memory for ID, the control circuit required for communication, etc. are stored in the IC chip inside a RFID tag, and an identification code peculiar to the goods with which it is equipped is written in the memory for ID by a registration machine (3).

**0008**A read unit (4) consists of an antenna (41) which receives the signal of a RFID tag (2), and a reader (42) which reads the signal which was connected with this antenna (41) and received with the antenna. A reader (42) changes from a send state to a receive state, and receives the signal from a RFID tag (2) via an antenna (41) while it sends an electric wave (electromagnetic waves) to a RFID tag (2) and gives the energy for a response to a RFID tag (2). The reader (42) is equipped with the input/output interface and the reader (42) is connected with the information control means (5) via this input/output interface.

**0009**The above-mentioned read unit (4) is installed for every division where goods (1) were kept or displayed, and the individual address is set up for every division. For example, when five kinds of products (1) are divided into five showcases and displayed for every several kinds, a read unit (4) is installed in each showcase for one showcase as one division, respectively. And as opposed to each read unit (4), the individual address A, B, C, D, and E is set up. Setting out of the division in this invention is arbitrary, for example, divide one room into two or more area, and it is good also as one division respectively, and each area, Although it is good also as one division respectively in each stage of one shelf, when a division is formed for every place in which goods of the same kind are accommodated, for example, it is desirable on merchandise management.

**0010**An information control means (5) is provided with the following.  
CPU(51).

The storage parts store (52) with which consisted of memories, such as RAM and ROM, and various programs were remembered to be.

Input/output interface (53).

Indicators (54), such as a display, printers (55), such as a printer, and an internal clock (56).

It receives via an input/output interface (53) and an information control means (5) memorizes the information signal of an identification code transmitted from a reader (42) to a storage parts store (52). The division information which shows the division name corresponding to the address given to merchandise information and each read unit, such as a kind of goods and a price, to the storage parts store (52) of an information control means (5) is memorized beforehand, The identification code and address which were sent from this merchandise information and division information, and a reader (42) are combined by CPU (51), While being displayed on an indicator (54) as information which goods the read unit (4) installed in which division detected, a storage parts store (52) memorizes.

**0011**It is preferred to make the storage parts store (52) of an information control means (5) memorize the software program which can arrange the read unit (4) allocated in this invention in the division where goods (1) are kept or displayed, and the division on a display (indicator), It becomes possible to perform

merchandise management more easily by this.

**0012** Drawing 2 is a schematic diagram showing an example of the installation method of a read unit (4). In the example of a graphic display, goods (1) are displayed by each stage of the showcase (6) provided with four steps of placing parts, and the read unit is installed for every stage. The antenna is allocated into the mat (7) with which each stage upper surface was covered, and the reader (42) is laid in the end of each stage in the state where it was connected with the antenna. In this case, one stage constitutes one division and the respectively individual address is set to the read unit (4) of each stage. And by laying goods (1) in the upper surface of each shelf, it is received by the antenna in a mat (7), and the signal from the RFID tag (2) with which goods (1) were equipped is read with a reader (42), and is sent to the information control means which is not illustrated. In an information control means, the time which received the signal from a reader (42) is measured by an internal clock (56), and is memorized with the detection information on goods. It also becomes possible to be able to grasp in real time how many goods (1) are laid in the stage of a showcase (6) throat, and to detect a theft and loss by this.

**0013** In this invention, it is preferred that add to the above-mentioned composition and goods allocate a read unit (4) in the entrance of the room kept or displayed. Drawing 3 constructs a mat (10) in the entrance (9) of the warehouse (8) provided with two or more storage racks (11), allocates an antenna in the inside of this mat (10), and shows the example which connected this antenna with the reader (42). The goods in which it was equipped with the RFID tag are accommodated in each storage rack (11). Since passage of the entrance (9) of goods can be read with a reader (42) according to the composition of this example, it can grasp also about the information on when arrival of goods and shipment were performed in addition to the information on the existence of stock, and it becomes possible to manage a motion of goods in real time.

**0014** In the above-mentioned composition, when goods pass through an entrance (9), a command is taken out from the information control means (5) which received the signal from a reader (42) to a printer (55) and the invoice of goods is made to be published automatically, it is more desirable.